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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,337	03/12/2004	Dean S. Irwin	PMEDEX.17CP1C	6234
20995	7590	03/24/2006	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP			FARAH, AHMED M	
2040 MAIN STREET			ART UNIT	
FOURTEENTH FLOOR			PAPER NUMBER	
IRVINE, CA 92614			3735	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/799,337	<b>Applicant(s)</b> IRWIN, DEAN S.	
	<b>Examiner</b> Ahmed M. Farah	<b>Art Unit</b> 3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/24/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou U.S. Patent No. 6,083,218 in view of Anvari et al. US Patent No. 5,979,454.

Chou discloses a method and apparatus for removing deceased tissue (dental caries), the apparatus comprising:

a source of UV light with the range of 300 and 315 nm (XeCl laser source generating 308 nm light (see Fig. 1; Col. 3, lines 34-41; and claim 1)); and a cooling subsystem for cooling the tissues at the target site (Col. 3, lines 1-2).

In this Office Action, it is noted that the applicant's instant claim is intended for the treatment of the skin tissue (soft tissue). It is further noted that the Chou patent is intended for the treatment of dental tissues (hard tissue). However, the type of tissue treated is an intended use and adds no structural and/or functional limitation to the claimed device. Furthermore, the device of Chou is fully capable for treating skin tissue (soft tissue). Although Chou provides a cooling means for cooling the tissues at the treatment site, he does not particularly cool the tissue to about 0 °C as claimed. However, his device is capable to cool the tissue to very low temperatures.

Anvari et al. disclose an apparatus and method of use for cooling skin tissue during phototherapy, the apparatus providing to the skin a cooling fluid capable to cool the skin to temperatures close to 0 ° C (see col. 7, lines 17-18). Therefore, at the time of the applicant's invention, it would have been obvious to one skilled in the art to modify Chou in view of Anvari et al. to use a cooling fluid capable to cool the skin tissue to a very low temperature in order to induce hypothermia. This would alleviate discomfort of the skin during the phototherapy. This cooling would also minimize or eliminate thermal damage to the tissue in the irradiated region and surrounding area.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartman U.S. Patent No. 6,413,268 B1 in view of Anvari et al. US Patent No. 5,979,454.

Hartman discloses apparatus and method for targeted UV phototherapy of skin disorders such as psoriasis, vitiligo, eczema, and the like, as presently claimed (Col. 1, lines 6-11), the apparatus comprising:

a source of high intensity UV light having an output energy in the wavelength range of 300 -315 nm (arc mercury lamp **12** of Hartman emits UVB light in the wavelength range between 300 -315 nm as presently claimed (see Col. 5. lines 22-24. and Col. 11. lines 22-27)) ;

a conduit (elongated light guide **16**) having an input end for receiving UV light from the source and an output end for emitting said UV light; and

a delivery device (handpiece **18**) attached to the output end of said conduit (see Figs. 1, 2 and 7).

As to the limitation "high intensity ultraviolet light equal to or greater than about 1 minimum erythema dose (MED) in the wavelength range of between about 300 and 315 nanometers" in claims 1 and 4 of the instant application, Hartman teaches that, initially, the MED for each patient is determined by irradiating series of small patches of skin (Col. 8, lines 19-24). He further teaches that the radiation dose delivered to the treatment area "may be up to six times the estimated MED for a patient" (Col. 11, lines 31-32). Hence, Hartman anticipates the claimed limitation.

However, although it is well known in the medical art to cool the skin during high-energy/intensity light therapy, Hartman fails to teach the use of a cooler or a cooling unit included in the delivery device for cooling the tissue. Nevertheless, to cool the skin tissue during phototherapy of the skin/tissue with high intensity/energy light is well known in the medical art.

Anvari et al. disclose an apparatus and method of use for cooling skin tissue during phototherapy, the apparatus providing to the skin a cooling fluid capable to cool the skin to temperatures close to 0 °C (see col. 7, lines 17-18). Therefore, at the time of the applicant's invention, it would have been obvious to one skilled in the art to modify Chou in view of Anvari et al. to use a cooling fluid capable to cool the skin tissue to a very low temperature in order to induce hypothermia. Lowering the temperature of the epidermis during irradiation would alleviate discomfort of the skin during the phototherapy. It would also minimize or eliminate thermal damage to the epidermis in the irradiated region and surrounding tissue.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

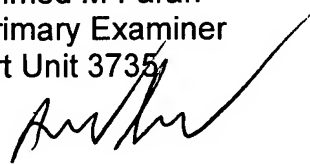
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ahmed M. Farah whose telephone number is (571) 272-4765. The examiner can normally be reached on Mon-Thur 9:30 AM-7:30 PM, and 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ahmed M Farah  
Primary Examiner  
Art Unit 3735



March 20, 2006.